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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,091	01/21/2005	Christian Scherabon	AT02 0045 US	5837

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EXAMINER	
BROWN, VERNAL U	

ART UNIT	PAPER NUMBER
2612	

NOTIFICATION DATE	DELIVERY MODE
07/02/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/522,091	SCHERABON, CHRISTIAN	
	Examiner	Art Unit	
	VERNAL U. BROWN	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to communication filed on May 27, 2008.

Response to Arguments

Applicant's arguments, filed May 7, 2008, with respect to claims 1-16 have been fully considered and are persuasive. The rejection of claims 1-16 has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1-2, 6-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. US Patent 7253717 in view of Arneson et al. US Patent 7009496.

Regarding claim 1, Regarding claim 1, Armstrong teaches sending interrogation information from an interrogator to the data carriers (150) in the communication range of the interrogator (col. 10 lines 39-42) and the interrogation signal signals the start of N successive time slot (col. 12 lines 55-66). Armstrong teaches sending response information from the data carriers to the interrogator by selecting one of the N time slots to send its information identifying the data carrier (col. 11 lines 24-32). Armstrong also teaches sending a time slot progressing information for progressing from the current time slot to the time slot following next in line by sending the command to the data carrier to select a new ID and the tag ID is used to generate the new time slot in which the data carrier responds (col. 11 lines 25-32, col. 16 lines 44-57). The information in the Tag_ID command represent a time slot characterizing information because it

is use to select a new time slot. Armstrong is silent on teaching the time slot characterizing information which identifies one of the N time slots. Ameson in an analogous art teaches a RFID tag reader sending a count number which is used by the tag as the time slot number in which the tag transmit its data to the reader (col. 8 lines 59-col. 9 line 8).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong et al. as disclosed by Ameson et al. because transmitting time slot characterizing information which is used by the tag to establish a current time slot represent an alternative means of assigning a time slot and further optimizes the interrogation of the plurality of tags in the interrogation field.

Regarding claims 2 and 6, Armstrong teaches detecting when a collision occurs in a particular time slot, the collision indicate that more than one data carrier is transmitting in the same time slot (col. 15 lines 44-52) and the data carrier is instructed to change its time slot by transmitting a new Op_cost value to the data carrier {the Op_cost value is used to determine the time slot of the data carrier}(col. 13 lines 5-37).

Regarding claim 7, Armstrong teaches a data carrier (150) respond to interrogation information received from a reader station during one of the N time slot (col. 11 lines 15-33). Armstrong teaches the data carrier having a receiver means to receive the interrogation information and with time slot progressing information from the reader station. The examiner considers the transmission of the new Op_cost value to the data carrier equivalent to the time slot progressing information because the data carrier use the new Op-Cost value to select a new time slot in which the data carrier responds to the reader (col. 13 lines 5-37). Armstrong teaches sending definition means to define one of the N time slots as a return time slot in which the data

carrier send the response information to the reader station (col. 15 lines 44-52). Armstrong teaches the Op-Cost value includes time slot characterizing information because the selection of the time slot is based on whether the Op_cost value is based on whether or not the Op_cost value is lower than the internally generated random variable (col. 15 lines 40-44). Armstrong is silent on teaching the time slot characterizing information which identifies one of the N time slots. Ameson in an analogous art teaches a RFID tag reader sending a count number which is used by the tag as the time slot number in which the tag transmit its data to the reader (col. 8 lines 59-col. 9 line 8).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong et al. as disclosed by Ameson et al. because transmitting time slot characterizing information which is used by the tag to establish a current time slot represent an alternative means of assigning a time slot and further optimizes the interrogation of the plurality of tags in the interrogation field.

Regarding claim 11, Armstrong teaches a reader station to identify data carriers which are arranged in the communication field of the reader station with sending means for sending the interrogation signal (col. 10 lines 39-42) and sending the time slot progressing information in the form of the OP_cost value is used by the data carrier to select a new time slot (col. 15 lines 40-44). Armstrong teaches the reader station has receiver means for receiving responses from the data carrier in the time slot selected by the data carrier (col. 15 lines 45-48). Armstrong teaches time slot evaluation means for detecting when there is a collision in a particular time slot (col. 15 lines 44-52). Armstrong teaches the Op-Cost value includes time slot characterizing information because the selection of the time slot is based on whether the Op_cost value is based on whether

or not the Op_cost value is lower than the internally generated random variable (col. 15 lines 40-44). Armstrong is silent on teaching the time slot characterizing information which identifies one of the N time slots. Ameson in an analogous art teaches a RFID tag reader sending a count number which is used by the tag as the time slot number in which the tag transmit its data to the reader (col. 8 lines 59-col. 9 line 8).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong et al. as disclosed by Ameson et al. because transmitting time slot characterizing information which is used by the tag to establish a current time slot represent an alternative means of assigning a time slot and further optimizes the interrogation of the plurality of tags in the interrogation field.

Regarding claims 12 and 16, Armstrong teaches detecting when a collision occurs in a particular time slot, the collision indicate that more than one data carrier is transmitting in the same time slot (col. 15 lines 44-52) and the data carrier is instructed to change its time slot by transmitting a new Op_cost value to the data carrier {the Op_cost value is used to determine the time slot of the data carrier}(col. 13 lines 5-37).

Claims 3-4, 8-9, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. US Patent 7253717 in view of Arneson et al. US Patent 7009496 in view of MacLellan et al. US Patent 5929779.

Regarding claims 3-4, 8-9, and 13-14, Armstrong also teaches sending a time slot progressing information for progressing from the current time slot to the time slot following next in line by sending the command to the data carrier to select a new ID and the tag ID is used to generate the new time slot in which the data carrier responds (col. 11 lines 25-32, col. 16 lines 44-57) but is silent on teaching time slot characterizing information is formed by multiple pulses. MacLellan et al. in an art related interrogator system teaches sync pulses used as time slot characterizing information for indicating the position of the time slot (figure 4, col. 5 lines 31-40).

It would have been obvious to one of ordinary skill in the art for the time slot characterizing information to be formed by multiple pulses in Armstrong et al. as disclosed by MacLellan et al. because pulses are conventional use as a means of synchronizing the data carrier and indicates the position of each time slot.

Claims 5, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. US Patent 7253717 in view of Arneson et al. US Patent 7009496 in view of MacLellan et al. US Patent 5929779 and further in view of Voegele US Patent 6725014.

Regarding claim 5, Armstrong teaches detecting when a collision occurs in a particular time slot, the collision indicate that more than one data carrier is transmitting in the same time slot (col. 14 lines 23-44). The detection of the collision in the time slot represent the time slot characterization information and reference of Voegele teaches adding a checksum to the transmitted data in order to detect when data collision occurs (col. 3 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong as disclosed by Voegele because the checksum added to the transmitted data allow

the detection of data errors cause by data collision and ensure efficient communication between the interrogator and data carrier.

Regarding claim 10, Armstrong teaches detecting when a collision occurs in a particular time slot, the collision indicate that more than one data carrier is transmitting in the same time slot (col. 14 lines 23-44). The detection of the collision in the time slot represent the time slot characterization information and reference of Voegele teaches adding a checksum to the transmitted data in order to detect when data collision occurs (col. 3 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong as disclosed by Voegele because the checksum added to the transmitted data allow the detection of data errors cause by data collision and ensure efficient communication between the interrogator and data carrier.

Regarding claim 15, Armstrong teaches detecting when a collision occurs in a particular time slot, the collision indicate that more than one data carrier is transmitting in the same time slot (col. 14 lines 23-44). The detection of the collision in the time slot represent the time slot characterization information and reference of Voegele teaches adding a checksum to the transmitted data in order to detect when data collision occurs (col. 3 lines 1-7).

It would have been obvious to one of ordinary skill in the art to modify the system of Armstrong as disclosed by Voegele because the checksum added to the transmitted data allow the detection of data errors cause by data collision and ensure efficient communication between the interrogator and data carrier.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERNAL U. BROWN whose telephone number is (571)272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vernal U Brown/
Examiner, Art Unit 2612
June 24, 2008